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ARIZONA CORPORATION COMMISSION UNION PACIFIC'S RESPONSES TO REVISED FIRST SET OF DATA REQUESTS DOCKET NO. RR-03639A-07-0518

Anderson Road, Montgomery Road, Ethington Road and Thornton Road in Pinal County & City of Casa Grande, AZ **DECEMBER 7, 2007**

Provide Average Daily Traffic Counts ("ADT") for each of the four locations. CW 1.1

With the exception of Ethington Road, as to which HDR provided the Response: information, Union Pacific Railroad Company ("Union Pacific") must rely on information provided by others to provide ADT's. With that caveat, Union Pacific responds as follows:

Crossing	Current ADT	Source
Anderson Road	1,043	CAAG 2005 Traffic Count data provided by John Kraft
Montgomery Road	108	CAAG 2005 Traffic Count data provided by John Kraft
Ethington Road	299	2007 Traffic Counts by HDR
Thornton Road	2,418	2007 City of Casa Grande Traffic Count data provided by Gwen Geraci

Source:

1) John Kraft @ Pinal County, PO Box 727, Florence, AZ 85232,

(520) 866-6480. (Pinal County Counts)

2) Jennifer Crumbliss, HDR Engineering, 8404 Indian Hills Drive,

Omaha, NE 68114. (HDR Traffic Counts)

3) Gwen Geraci, City of Casa Grande Civil Engineer, 3181 N. Lear Avenue, Casa Grande, AZ (520) 421-8625 (City of Casa Grande Traffic Counts)

Please describe the current Level of Service ("LOS") at each intersection.

Response:

Union Pacific believes that the level of service analysis is concerned with mobility rather than safety. In addition, with the exception of Ethington Road, as to which HDR provided the information, Union Pacific must rely on information provided by others to calculate the level of service. With those caveats, Union Pacific responds as follows:

Crossing	LOS		
Anderson Road	Northbound (LOS=A), Southbound (LOS=A)		
Montgomery Road	Northbound (LOS=A), Southbound (LOS=A)		
Ethington Road	Northbound (LOS=A), Southbound (LOS=A)		
Thornton Road	Northbound (LOS=A), Southbound (LOS=A)		

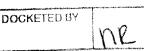
Arizona Comporation Commission

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Source:

Traffic level of service calculations were performed using Synchro and SimTraffic programs under the direction of Heidi Schneider with HDR Engineering, Inc at 5210 E Williams Circle, Suite 503, Tucson, AZ 85711, (520) 584-3600. The train delay times utilized in the analysis were provided by Tom Domres, with TKDA at 750 Shoreline Drive, Suite 100, Aurora, IL 60504, (630) 499-4110 via Union Pacific.

CW 1.3 Provide any traffic studies done by the road authorities for each area.

Response:

1) The 2007 Pinal County Comprehensive Plan on http://www.co.pinal.az.us/PlanDev/PDCP/CPInfo.asp

2) 2006 Pinal County SATS (Small Area Transportation Study) on

http://www.co.pinal.az.us/PubWorks under "Downloads"

3) 2007 Final City of Casa Grande SATS on

http://www.ci.casa-grande.az.us/dev center/development center.php

4) Other development traffic studies contact:

Leila A. DeMaree, Senior Planner

City of Casa Grande

510 E. Florence Blvd.,

Casa Grande, AZ 85222

CW 1.4 Provide distances in miles to the next public crossing on either side of the proposed project location. Are any of these grade separations?

Response:

Union Pacific believes that the last question in CW 1.4 raises an issue that is irrelevant, namely, whether either of the next public crossings is a grade separation. With that caveat, Union Pacific responds as follows:

Crossing	TO THE WEST	TO THE EAST	
Anderson Road	2.44 miles to Hartman Rd	4.9 miles to Montgomery Rd	
Montgomery Road	4.9 miles to Anderson Rd	3.75 miles to Ethington Rd	
Ethington Road	3.75 miles to Montgomery Rd	2.4 miles to Thornton Rd	
Thornton Road	2.4 miles to Ethington Rd	1.5 miles to US 84	

The only adjacent crossing that is a grade separation is at US 84 east of Thornton Rd.

Source:

HDR's use of the Union Pacific Straight-line Diagrams and

www.MapQuest.com.

CW 1.5 How and why was grade separation not decided on at this time? Please provide any studies that were done to support these answers.

Response:

Union Pacific understands that whether a grade separation is needed is primarily a question of mobility and convenience for vehicular traffic on the roadway, not safety. That is because an

at-grade crossing can be safe without constructing a grade separation and eliminating the grade crossing. Based on this understanding, Union Pacific believes the question, of whether a grade separation is needed, is irrelevant to Union Pacific's application to add a second mainline track at these grade crossings. With that caveat, Union Pacific responds as follows:

In addition to the foregoing, grade separation is not appropriate for determination at this time because the local communities and roadway authorities have not finally determined whether grade separations at these crossings are desired by those communities and authorities, what priority grade separations would have with respect to other public projects, when construction of grade separations could be begun and finished, and how grade separations would be funded. Union Pacific is aware that the local communities and roadway authorities are studying these matters (including ADOT's study concerning Maricopa Road) outside the context of Union Pacific's applications for grade crossing alterations.

Furthermore, Union Pacific believes the four crossings involved in this application are safe without constructing grade separations. This conclusion is supported by the fact that the Federal Highway Administration authorizes the use of gates and lights at multiple-track grade crossings as proposed in this application.

CW 1.6 If this crossing were to be grade separated, provide a cost estimate of the project.

Response:

Again, Union Pacific understands that whether a grade separation is needed is primarily a question of mobility and convenience for vehicular traffic on the roadway, not safety. That is because an at-grade crossing can be safe without constructing a grade separation and eliminating the grade crossing. Based on this understanding, Union Pacific believes the question of whether a grade separation is needed is irrelevant to Union Pacific's application to add a second mainline track at these grade crossings. In addition, any attempt to estimate the cost to construct a grade separation would be speculative in the absence of a detailed study of the particular crossing in question. With those caveats, Union Pacific responds as follows:

In connection with its recent application to upgrade the crossing of Union Pacific tracks at the intersection of Power and Pecos Roads, RR-03639A-07-0398, the Town of Gilbert estimated that a grade separation at that location would cost \$22 million. Depending on the particular crossing involved, a reasonable range for the costs of constructing a grade separation would be between \$20 million and \$40 million.

CW 1.7 Please describe what the surrounding areas are zoned for near this intersection. i.e. Are there going to be new housing developments, industrial parks, etc.?

Response:

Union Pacific believes that the second part of CW 1.7 calls for speculation as to whether new housing developments, industrial parks, or other developments will occur in the future. In addition, Union Pacific does not have access to such information, but instead must rely on information provided by others. With those caveats, Union Pacific responds as follows:

Pinal County has a 2006 Land Use Map that matches the field diagnostic observations. The CAAG does not have an existing land use map completed at this time. The future planned zoning and the possible developments in the area of these crossings are shown on the City of Casa Grande 2010 Zoning Map and the Development Map on their website. The observed land use from the field diagnostics are shown below:

Crossing	2007 Observed Land Use	2010 Land Use
Anderson Road	Rural and Industrial	Low Density Residential
Montgomery Road	Rural Undeveloped	Master Planned Community Commercial, Employment
Ethington Road	Rural and Agricultural	Commercial, Employment, Low- density Residential
Thornton Road	Agricultural and Employment	Employment

The City of Casa Grande and Pinal County planning departments can better answer the question of future developments. They review development impact studies and regulate zoning.

Source:

- 1) 2006 Pinal County SATS (Small Area Transportation Study) on http://www.co.pinal.az.us/PubWorks under "Downloads"
- 2) The Central Arizona Association of Governments' Planning Department (CAAG) http://www.caagcentral.org/GIS/gishome.html
- 3) The City of Casa Grande http://www.ci.casa-rande.az.us/gis/maps.php

Leila A. DeMaree, Senior Planner

City of Casa Grande 510 E. Florence Blvd., Casa Grande, AZ 85222

CW 1.8 Please supply the following: number of daily train movements through the crossing, speed of the trains, and the type of movements being made (i.e. thru freight or switching). Is this a passenger train route?

Response: The movements are the same for these four crossings.

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Train Count: 48 total average trains per day (46 freight, 2 passenger)
Train Speed: 79 mph passenger / 70 mph freight
Thru Freight/Switching Moves: All moves through these four crossings are
thru freight. (According to MTO Rob Henderson there are no switching
moves at these crossings.)

These crossings are used by Amtrak twice per day, three times per week.

Source: Union Pacific's Manager of Train Operations, Rob Henderson.

CW 1.9 Please provide the names and locations of all schools (elementary, junior high and high school) within the area of the crossing.

Response:

There are no schools within four (4) miles of Anderson Road, Montgomery Road or Ethington Road. There are four schools within two (2) miles of Thornton Road, as follows:

Saguaro Elementary School @ 1801 N Center, Casa Grande, AZ 85222 Casa Grande Middle School @ 300 W Mc Murray, Casa Grande, AZ 85222 Desert Winds High School @ 1362 N Casa Grande Ave, Casa Grande, AZ 85222

Casa Verde High School @ 1362 N Casa Grande Ave, Casa Grande, AZ 85222

Source:

- 1) Jennifer Crumbliss, Senior Transportation Engineer with HDR, Engineering, Inc. at 8404 Indian Hills Drive, Omaha, NE 68114, (402) 926-7049 used the internet site www.GoggleEarth.com also, Juan Cruz, Roadway Designer with HDR in Tucson, physically verified hospital and school locations on June 14, 2007.
- 2) Sandy Brown, Assistant Transportation Supervisor for Casa Grande Elementary District #4 located at 1400 N. Pinal Ave, Casa Grande, AZ 85222, (520) 836-5231.
- 3) Brenda Hanson, Transportation Supervisor for Casa Grande High School @ 300 W McMurray, Casa Grande, AZ 85222, (520) 316-3382.
 4) Sabrina Blanton, in transportation for the Maricopa School District, located at 45012 W. Honeycutt Avenue, Maricopa, Arizona 85239, (520) 568-5120.
- CW 1.10 Please provide school bus route information concerning the crossing, including the number of times a day a school bus crosses this crossing.

Response: The City of Maricopa currently has no buses traversing these four atgrade crossings. However, the City of Casa Grande School buses, combined, cross Anderson Road a total of 4 times per day during the

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week and cross Thornton Road a total of 12 times per day during the week. Montgomery Road and Ethington Road are not used for busing to our knowledge.

Source:

1) Sabrina Blanton, in transportation for the Maricopa School District, located at 45012 W. Honeycutt Avenue, Maricopa, Arizona 85239, (520) 568-5120.

2) Sandy Brown, Assistant Transportation Supervisor for Casa Grande Elementary District #4 located at 1400 N. Pinal Ave, Casa Grande, AZ 85222, (520) 836-5231.

CW 1.11 Please provide information about any hospitals in the area and whether the crossing is used extensively by emergency service vehicles.

Response: The nearest hospital to these crossings is Casa Grande Hospital

(approximately 12 miles away east of Anderson Road and 4 miles north of Thornton Road). To our knowledge, none of these crossings are used

extensively by emergency service vehicles.

Source: Jennifer Crumbliss, Senior Transportation Engineer with HDR,

Engineering, Inc. at 8404 Indian Hills Drive, Omaha, NE 68114, (402) 926-7049 used the internet site www.GoggleEarth.com also, Juan Cruz, Roadway Designer with HDR in Tucson, physically

verified hospital and school locations on June 14, 2007.

CW 1.12 Please provide the total cost of improvements to each crossing.

Response:

Crossing	Crossing Surface	Signal	Total
Anderson Road	\$38,600.00	\$281,616.00	\$320,216.00
Montgomery Road	\$38,600.00	\$226,245.00	\$264,845.00
Ethington Road	\$30,880.00	\$226,245.00	\$257,125.00
Thornton Road	\$38,600.00	\$357,616.00	\$396,216.00

Source:

Union Pacific's Engineering.

ORIGINAL AND THIRTEEN COPIES of the foregoing filed this 7th day of December, 2007, with:

Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007 COPY of the foregoing e-mailed and mailed this 7th day of December, 2007, to:

Mr. David Raber Mr. Brian Lehman Mr. Chris Watson Railroad Safety Section Arizona Corporation Commission 2200 North Central Avenue, #300 Phoenix, Arizona 85004

COPY of the foregoing hand-delivered this 7th day of December, 2007, to:

Janice M. Alward, Esq. Charles H. Hains, Esq. Kenya Collins, Esq. Legal Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

Mary Ann Palmer